

Convergence of the National Regulations of the Republic of Uzbekistan and Global Standards for Calculating and Controlling the Costs of Other Expenses in the Construction Sector

Firyuza Galimova ¹, Dmitriy Chernyaev ²

¹Department of Green Economy and Sustainable Business, Tashkent State University of Economics, Tashkent, Uzbekistan
e-mail: firuzaza@gmail.com

²2nd-year student at the Non-State Educational Institution of Higher Professional Education “University of Industry and Finance ‘Synergy’” in the field of Finance
e-mail: dimapmsis@gmail.com

Abstract: *The effective management of project costs is a decisive factor in the successful implementation of investment and construction projects. Within the structure of estimated costs, a special place is occupied by so-called other expenses, which include overhead costs, contingency reserves, and the associated costs of both the contractor and the client. In the construction practice of the Republic of Uzbekistan, the calculation of these components has traditionally relied on rigid regulatory frameworks and averaged coefficients inherited from a planned economy, whereas international practice resolves the same issue through standardized contract systems and transparent mechanisms for accounting for indirect expenses. This article presents a qualitative comparative analysis of national and international methodologies for calculating and controlling other expenses in the construction sector, based on the primary regulatory and contractual instruments of the Republic of Uzbekistan and the standards of FIDIC, RICS, and the Joint Contracts Tribunal. The analysis shows that the national system is grounded in a cost-statistical, retrospective, and strictly state-controlled approach, while international standards treat other expenses as a flexible commercial variable governed by contractual claims management and probabilistic reserve estimation. On this basis, the study proposes separating overhead into Head Office and Site Overhead components calculated from the Construction Organization Project, and introducing independent cost control, in order to enhance pricing flexibility, strengthen transparency, and reduce investment risks for construction participants.*

Keywords — other expenses; overhead costs; contingency reserves; construction cost estimation; cost engineering; risk management; public procurement.

1. INTRODUCTION

In the contemporary development of the investment and construction sphere, effective project cost management serves as a key factor in their successful implementation. A special place within the structure of estimated costs is occupied by the so-called “other expenses,” which include overhead costs, contingency reserves, and the associated costs of both the contractor and the client.

In construction practice within the Republic of Uzbekistan, the calculation of these components has traditionally been based on rigid regulatory frameworks and averaged coefficients inherited from a planned economy. However, the specifics of modern market relations demand more flexible, economically justified approaches to risk distribution and the determination of associated costs. In international construction practice, this issue is resolved through standardized contract systems and transparent mechanisms for accounting for indirect expenses (Overhead, Contingencies, Claims/Variations). Consequently, an acute need arises to conduct a comparative analysis of domestic and foreign methodologies to identify their advantages, disadvantages, and the adaptation of best global practices.

Issues of pricing, cost estimation, and expense management in construction have always remained at the center of researchers' attention. Nevertheless, the majority of existing works focus on the analysis of direct costs and estimated profit, while “other expenses” are often treated as a residual item. The comparability of domestic approaches with international standards (such as FIDIC [1], RICS [2], and JCT [3]) remains insufficiently studied, which creates barriers to the implementation of large-scale infrastructure projects involving foreign investors and contractors (Table 1).

2. LITERATURE REVIEW

The management of indirect and other expenses in construction has been addressed primarily through measurement standards, contract forms, and risk-analysis methods. On the measurement side, the RICS New Rules of Measurement (NRM 1) provide a structured basis for quantifying preliminaries, overheads and profit, project and design-team fees, and risk allowances [2]. On the contractual side, standard forms such as the FIDIC Conditions of Contract for Construction [1] and the JCT Standard Building Contract [3] allocate risk between the parties and regulate the pricing consequences of Variations and Claims. The recovery of unabsorbed head office overhead in cases of delay and disruption is a well-developed area of practice, governed by established formulae – Hudson, Emden and Eichleay – and by

the Society of Construction Law Delay and Disruption Protocol [5], [6]. In parallel, a growing body of research argues that contingency reserves should be derived from probabilistic risk analysis, in particular Monte Carlo simulation, rather than from arbitrary fixed percentages of project cost [7], [8].

In the post-Soviet space, construction pricing has historically relied on normative and index-based methods inherited from the Soviet SNiP system. In the Republic of Uzbekistan, the transition to "contractual current prices" was introduced by Resolution of the Cabinet of Ministers No. 261 of 11 June 2003 and operationalized through the ShNK rules for determining the cost of construction in contractual current prices [9], [10], while the calculation of the contractor's and client's other expenses is governed by dedicated sectoral Methodological Recommendations [11]. Despite the practical importance of these instruments, systematic comparison of the national methodology for other expenses with international cost-engineering and contract standards remains limited. The present study addresses this gap.

3. MATERIALS AND METHODS

This study is based on a qualitative comparative analysis of primary regulatory and contractual instruments. The national framework is examined through the normative and methodological documents of the Republic of Uzbekistan – Resolution No. 261 [9], the ShNK rules on contractual current prices [10], the Methodological Recommendations on other expenses [11], the ShNK collections on temporary buildings and winter-period works [12], [13], and the state statistical reporting forms used for retrospective cost analysis [14]. The international framework is examined through the FIDIC, RICS and JCT standards [1]–[3], the UNCITRAL Model Law on Public Procurement [4], the SCL Delay and Disruption Protocol [5], and peer-reviewed literature on contingency estimation [7], [8]. The two systems are compared along six criteria – conceptual basis, overhead structure, method of calculation, risk and contingency management, regulation of changes and deviations, and financial control and audit – which are summarized in Table 1. The analysis is normative and descriptive; it does not draw on a project-level empirical dataset, which the authors acknowledge as a limitation and a direction for further quantitative research.

4. NATIONAL REGULATION OF OTHER EXPENSES IN THE REPUBLIC OF UZBEKISTAN

In the national construction practice of the Republic of Uzbekistan, the calculation of other expenses is strictly regulated by a regulatory and methodological framework, in particular by sectoral methodological recommendations [11] and provisions on transitioning to contractual current prices [9], [10]. This approach is based on a clear demarcation of financial responsibility zones between the client and the contractor.

The client's other expenses represent a fixed complex of expenditures ensuring the preparation, support, and commissioning of an investment project. This includes costs

for design and survey work, state and ecological expertise, architectural supervision, organization of competitive bidding (tenders), maintenance of the client's service with technical supervision functions, land allotment, and compensation payments for demolished structures.

The contractor's other expenses integrate the organization's administrative and other operational expenses, as well as the necessary profit aimed at replenishing working capital and modernizing the production base. The calculation of these costs is retrospective in nature: it relies on the analysis of actual balance sheet indicators for the preceding 12-month period (data from statistical reporting forms No. 5-S, No. 1-T [14], and accounting records for period expenses). The regulatory framework also provides for a limit on the contractor's other expenses (in the practice of forming starting prices—at a level of up to 20% of direct costs or according to regional statistical bulletins).

Table 1: Comparative analysis of methodologies for calculating contractor and client other expenses in the Republic of Uzbekistan and in international practice

Comparison Criterion	Republic of Uzbekistan	International Practice (FIDIC, RICS, JCT)
Concept	Cost-statistical approach. Rigid regulatory regulation, itemized accounting, and linkage to general state classifiers.	Market-oriented cost engineering, contractual risk management, and flexible pricing.
Overhead Structure	Integration of the company's administrative and operational expenses into a single indicator of the contractor's other expenses.	Clear separation into Head Office Overhead and Site Overhead expenses.
Basis and Calculation Method	Retrospective analysis of the enterprise's accounting and statistical reporting for the previous 12 months (forms No. 5-S, No. 1-T).	Project calculations based on the Construction Organization Project (COP), work schedule, and market benchmarks.
Risk and Contingency Management	Use of fixed regional limits, norms (e.g., up to 20% of direct costs), and predictive risk coefficients.	Probabilistic risk analysis (Monte Carlo), formation of justified reserves (Contingencies), and dynamic management thereof.

Regulation of Changes and Deviations	Limited scope for estimate revision; strict list of permitted/prohibited expenses.	Structured, contractual revision of costs through Variations and Claims procedures; balanced risk allocation with fair compensation determined by an independent Project Engineer.
Financial Control and Audit	Multi-level state and treasury monitoring, verification through state supervision institutions.	Engagement of independent consulting engineers (Independent Engineer / Cost Consultant), efficiency audit (Value for Money).

Cost adjustments under changing construction conditions are strictly regulated. For multi-year construction, a special “Risk Coefficient” is applied, reflecting the predicted price growth index. Additional costs (winter-period appreciation, temporary buildings, and structures) are strictly regulated by departmental collections (e.g., ShNK 4.09-06 [12], ShNK 4.07-06 [13]). Expenses not included in the permitted list (Appendix No. 4 to the Methodological Recommendations [11]), such as fines, over-limit business trips, and exchange rate differences, are borne entirely as losses by the contractor and are not compensated by the client.

The financing of capital construction and reconstruction through state capital investments (budget funds) in the Republic of Uzbekistan is subject to a strict system of state regulation covering all stages of the investment process. Control over the targeted, efficient use of state budget funds and price formation in construction is multi-layered and interdepartmental. In accordance with the regulatory legal acts of the Republic of Uzbekistan, constant monitoring of the formation of starting and contractual prices for the construction of facilities using centralized sources is carried out by key state bodies.

The disbursement of budget funds is strictly tied to work completion stages confirmed by technical supervision acts. Payment is made through treasury mechanisms upon the availability of all necessary supporting documentation (contracts, estimates, expert reviews). State architectural and construction supervision exercises technical and supervisory control over compliance with design solutions, the quality of construction and installation work, and the targeted use of allocated resources directly at the construction site.

5. INTERNATIONAL PRACTICE: COST ENGINEERING AND RISK MANAGEMENT

In international construction practice, based on the standards of the International Federation of Consulting Engineers (FIDIC) [1], the Royal Institution of Chartered Surveyors (RICS) [2], and the Joint Contracts Tribunal (JCT) [3], a departure is made from detailed itemized cost estimation regulations in favor of flexible cost engineering and risk management. For instance, international standards classify indirect expenses into head office general operational expenses (Head Office Overhead) and construction site overhead expenses (Site Overhead – temporary buildings, security, maintenance of line personnel). Their calculation is carried out based on project estimates and market benchmarks rather than the contractor's previous year's financial statements.

Risk reserves are built into the client's budget in the form of probabilistic coefficients and are managed through transparent mechanisms for changing work volumes or conditions. Clear procedural mechanisms are utilized for revising costs through Variations (changes in volumes or types of work at the initiative of the engineer/client) and Claims (demands for compensation of additional costs and extension of deadlines upon the occurrence of risk events independent of the contractor). The risks of force majeure, legislative changes, or delays on the part of the client are balanced with the help of an impartial entity – the Project Engineer, who calculates fair compensation for the contractor's overhead expenses and losses. International contracts provide a clear procedural framework for revising costs and compensating contractor losses in the event of unforeseen circumstances or changes in project assignments at the client's initiative.

In international practice, the organization of calculation and control in financing infrastructure projects through state (budget) funds differs significantly from rigid administrative and itemized-regulated systems. Instead of uniform rigid estimate standards and indices (as in the national practice of Uzbekistan), foreign state clients use estimates based on market databases, historical analogues (historical cost data), and parametric modeling.

The budget takes into account not only capital expenditures (CapEx) for design and construction, but also future expenses for operation, routine maintenance, and disposal (OpEx). Scientifically grounded reserves are always embedded in project budgets: for unforeseen design work (Design Contingencies) and for inflation/market fluctuations (Price Contingencies). The size of these reserves is calculated using probabilistic risk analysis methods (e.g., Monte Carlo simulation) [7], [8].

The procurement of construction works for state needs is carried out through transparent competitive procedures (e.g., under UNCITRAL standards [4] or multilateral financial institution (MFI) rules). The contract price can be a firm lump sum (Lump Sum), cost-reimbursable (Cost Reimbursable), or unit-price based (Unit Price). International contract forms

(FIDIC, NEC, AIA) are widely applied, initially containing balanced mechanisms for dispute resolution, price adjustments under legislative changes, or client-induced delays.

For major budget-funded projects, the state engages independent consultants (consulting engineers) who exercise strict control over physical volumes, quality, and targeted expenditure of funds on behalf of the client. They sign interim payment certificates (Interim Payment Certificates). Treasury control via Public Financial Management (PFM) systems ensures that funding is allocated in stages based on achieved milestones (Milestones) or verified work progress. Funds are disbursed to the contractor not merely on the basis of incurred costs, but following verification by an independent engineer.

In addition to traditional financial audits for legality of spending, supreme audit institutions (analogues of the Accounts Chamber) regularly conduct performance audits, evaluating whether the maximum socio-economic effect per unit of invested budget money (Value for Money) has been achieved.

6. COMPARATIVE ANALYSIS AND DISCUSSION

The comparison summarized in Table 1 shows that the national and international approaches are not merely two variants of the same estimating technique but reflect two distinct philosophies of cost governance. The system of the Republic of Uzbekistan is control-oriented, retrospective, and statistical: other expenses are derived from the documented financial results of past enterprise operations and are constrained by centrally established limits, with the state acting as the principal guarantor of price discipline, particularly under budget financing. International practice, by contrast, is market-oriented, prospective, and probabilistic: other expenses are treated as a commercial variable estimated from the specific project and its market environment, with fairness secured *ex post* through contractual mechanisms rather than *ex ante* through rigid norms. Each orientation carries characteristic strengths and weaknesses, which become visible when the comparison criteria are examined in turn.

With respect to overhead structure, national practice consolidates administrative and operational costs into a single indicator of the contractor's other expenses, whereas international practice separates Head Office Overhead from Site Overhead. The consolidated indicator is simple to administer and easy to audit, but it obscures the economic origin of the costs and ties the contractor's recovery to a firm-wide average rather than to the conditions of a particular site. The international separation, calculated from the Construction Organization Project, links overhead to the actual logistics and duration of the works and, crucially, isolates head office overhead as a distinct, potentially recoverable category. It is precisely this isolation that underpins the well-established apparatus for compensating unabsorbed head office overhead in cases of delay and disruption – the Hudson, Emden and Eichleay formulae and the SCL Delay and Disruption Protocol [5], [6]. A single aggregated indicator leaves little room for

such reasoning and therefore limits the contractor's ability to substantiate legitimate overhead claims when project conditions change.

The basis of calculation exposes a similar tension. Anchoring other expenses to statistical reporting for the preceding twelve months (forms No. 5-S and No. 1-T [14]) provides verifiability and is consistent with the logic of budgetary control, but it makes cost estimates backward-looking and slow to reflect changing market conditions; it is also poorly suited to novel or technically complex projects for which historical enterprise data are not representative. Project-based estimation supported by market databases, historical cost analogues, and parametric modeling captures the specific project more faithfully, but it presupposes an infrastructure of reliable, regularly updated cost information and benchmarking that is itself demanding to build and maintain.

The treatment of risk and contingency is where the divergence is most consequential. The national system relies on fixed regional limits, normative ceilings (for example, up to 20% of direct costs), and predictive risk coefficients. Such fixed allowances are transparent and difficult to manipulate, but they are economically arbitrary, since they are not calibrated to the actual risk profile of a given project. The international approach embeds justified reserves – Design Contingencies and Price Contingencies – whose size is derived from probabilistic risk analysis, most commonly Monte Carlo simulation. This aligns with a substantial body of research that criticizes contingency estimation based on a fixed percentage of project cost as unreliable and advocates simulation-based estimation reflecting the real distribution of cost outcomes [7], [8]. The probabilistic approach yields better-calibrated reserves, but it introduces analytical discretion and depends on the availability of adequate input data and modeling capacity.

The regulation of changes and the architecture of control complete the picture. The national framework couples a strict list of permitted and non-compensated expenses with multi-level state and treasury monitoring, which strongly protects against the misuse of public funds but leaves limited room for adjusting costs when conditions genuinely change. International practice regulates deviations through structured Variations and Claims procedures and entrusts fair compensation to an impartial Project Engineer, while shifting part of the oversight burden to independent consulting engineers and to performance (Value for Money) audits. These two logics are not strict substitutes. Value-for-Money and independent cost control are broadly consistent with the objectives of transparent public procurement expressed in the UNCITRAL Model Law [4] and could, in principle, be layered onto the existing national control architecture rather than replacing it.

Taken together, the analysis suggests that the friction experienced in large, internationally financed projects is structural rather than incidental: foreign investors and contractors operate within a prospective, claims-based, probabilistically reserved framework, whereas the domestic

system remains retrospective, limit-based, and administratively controlled. This does not mean that one system is uniformly superior. The national framework delivers strong price discipline and robust protection of public funds, whereas the international framework delivers flexibility and a closer correspondence between estimated and actual project costs. For a transition economy, the central question is therefore not whether to replace one logic with the other, but which international instruments can be selectively incorporated without eroding the control safeguards that budget financing requires, and what institutional conditions their incorporation would demand.

7. CONCLUSIONS AND RECOMMENDATIONS

The current stage of development of Uzbekistan's construction industry is characterized by large-scale economic liberalization, the attraction of direct foreign investment, and the introduction of advanced corporate and state governance standards. The existing domestic system of calculating other expenses, relying on rigid regulatory compliance and retrospective statistical accounting, in some cases constrains the flexibility of the investment process.

For example, to optimize these processes, it is proposed to divide overhead expenses into office (Head Office Overhead) and site (Site Overhead) components, calculated on the basis of the Construction Organization Project (COP). This will avoid leveling statistical limits and increase the accuracy of cost estimates under the real logistical and technological conditions of a specific construction site. Furthermore, introducing independent cost control (Independent Cost Consultant / Engineer) is proposed. Enhancing transparency in fund utilization will lead to the prompt resolution of disputes regarding unforeseen expenses and strengthen investor confidence.

The transferability of these instruments, however, should not be overstated: each presupposes institutional prerequisites that are still developing – reliable and regularly updated market cost databases, a pool of qualified independent engineers and cost consultants, transparent and audited contractor accounts, and in-house capacity for probabilistic modeling. Reform is therefore best pursued as a phased, capacity-building process rather than a wholesale transplant. Even so, the selective integration of international cost-management elements into the practice of the Republic of Uzbekistan would enhance pricing flexibility and reduce investment risks for the participants of the construction process.

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